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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/830,057

04/23/2004

Jonson Tsai

176-102 (AMK)

9019

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EXAMINER

BLAIR, KILE O

ART UNIT

PAPER NUMBER

2615

MAIL DATE

DELIVERY MODE

05/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/830,057	Applicant(s) TSAI, JONSON	
	Examiner Kile O. Blair	Art Unit 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office action is in response to the communication filed on 4/10/2008.

Original claim 1-7 are pending.

Response to Amendment

The rejection under 35 USC § 112, second paragraph has been withdrawn in view of the amendment to the specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-5 and 7 are rejected under 35 U.S.C. 102(a) as being anticipated by Huang (US Pub. No. 2003/0103637).

Regarding claim 1, Huang teaches a headphone device with surround sound effect, comprising a speaker unit (ear cup 1, [0029], Fig. 3) that includes: a center channel transducer (center channel speaker, [0032]); a surround channel transducer (rear surround speaker, [0032]); a mid/woofer transducer (front main speaker if a designated mid range or combo mid/woofer [0032] or the woofer sound channel is a designated woofer, [0039]); and a base plate (cover, [0030]) having a first side and a second side opposite to said first side (two sides of cover, item 30, Fig. 4), said first side of said base plate being formed integrally with first, second and third transducer

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coupling portions (all three sound chambers 11, 12, and 13 are formed integral with cover, [0039], Figs. 5 and 6), each of said first, second and third transducer coupling portions retaining a respective one of said center channel transducer (sound chambers 11, 12, and 13 which each retain respective speakers 21, 22, and 23), said surround channel transducer and said mid/woofer transducer on said first side of said base plate such that sound generated by the respective one of said center channel transducer, said surround channel transducer and said mid/woofer transducer radiates through said second side of said base plate (sound from speakers through chambers exits through cover at sound output holes 32, [0033]), said first, second and third transducer coupling portions having first, second and third axes, respectively, said first, second and third axes extending in mutually different directions (front main channel sound effect (F), the center sound effect (C) and the surround sound effect (S) where the sound effects are all located on axes extending in mutually different directions, [0039], Figs. 5 and 6).

Regarding claim 2, Huang teaches the headphone device as claimed in Claim 1, wherein said speaker unit further includes a cap member mounted on said base plate and disposed to conceal said center channel transducer, said surround channel transducer and said mid/woofer transducer (housing 10, [0030]).

Regarding claim 3, Huang teaches the headphone device as claimed in Claim 1, wherein each of said first and second transducer coupling portions is formed with a through hole that extends from said first side to said second side of said base plate such that the sound generated by the respective one of said center channel transducer

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and said surround channel transducer can radiate through said second side of said base plate (sound output holes 32, [0033]).

Regarding claim 4, Huang teaches the headphone device as claimed in Claim 1, wherein said third transducer coupling portion is formed with a set of through holes extending from said first side to said second side of said base plate such that the sound generated by said mid/woofer transducer can radiate through said second side of said base plate (sound output holes 32, [0033]).

Regarding claim 5, Huang teaches the headphone device as claimed in Claim 1, wherein said first axis forms a first angle with a first line that is transverse to said second side of said base plate, and said second axis forms a second angle with a second line that is transverse to said second side of said base plate and that is spaced apart from said first line (front main channel sound effect (F) and the surround sound effect (S) form angles with the lines that are transverse {where transverse means perpendicular to the plane per the applicant's drawings (see applicant's drawings, graphical lines 32 and 22 in Fig. 7 where line 32 is the transverse line) } of the cover where the lines are spaced apart from one another, see Figs. 6 and 7).

Regarding claim 7, Huang teaches the headphone device as claimed in Claim 1, wherein said third axis is transverse to said second side of said base plate (the center sound effect (C) has an axis that is transverse with the cover, see Fig. 5).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huang.

Regarding claim 6, Huang teaches the headphone device as claimed in Claim 5, wherein one of said angles ranges from 20 to 30 degrees (that of the main channel axis and line is 15-20 degrees, [0043]). Although it appears in Fig. 6 that Huang does not explicitly teach a value within the range 20-30 degrees for the angle formed by the surround speaker axis and transverse line as required, it would have been obvious for one of ordinary skill in the art to adjust the axis of the sound from the surround speaker by making obvious alterations to the shape and the slope of the sound chamber as suggested with the mouthpiece adjustment [0036].

Response to Arguments

Applicant's arguments filed 4/10/2008 have been fully considered but they are not persuasive.

Regarding applicant's argument that Huang does not teach three transducer coupling portions having first, second, and third axes respectively and where the first, second, and third axes extend in mutually different directions, the examiner asserts that Huang does teach this feature in Fig. 5 and Fig. 6. The three transducer coupling portions (11, 12, and 13) each have distinct axes which are F, C, and S, respectively, as shown in Figs. 5 and 6. Axes F, C, and S extend in mutually different directions. Additionally, it is noted that Huang discloses that "[the three speakers] are installed at the front or rear end of the sound chambers and situated at the place of different height and angle inside the ear cup....." (Huang, [0036] and Huang, claim 3).

Regarding applicant's argument that the sound enclosures in Huang require separate molds for fabrication leading to higher manufacturing costs and therefore the speakers are not "formed integrally" with the cover 30 as in applicant's claim 1, the examiner asserts that Figs. 5 and 6 clearly show that the sound chambers or transducer coupling portions (11, 12, and 13) are touching (or virtually touching) the cover 30 (in the case of speaker 22, it is actually the speaker, not the sound chamber that is formed integrally with the cover) so that the sound enclosures and the cover are rigidly secured together. It has been held that the term integral is sufficiently broad to include parts that are rigidly secured. In *re Clark*, 214 F.2d 148, 102 USPQ 241 (CCPA 1954). "Integral" is not necessarily restricted to a one-piece article. In *re Kohno*, 391 F.2d 959, 157 USPQ 275.

Regarding applicant's argument that there is no suggestion to modify Huang to adjust the angle of the respective axes, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, modifying the angle of the axes of the speakers and sound enclosures is within the knowledge of one of ordinary skill in the art and would have been an obvious modification.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kile O. Blair whose telephone number is (571) 270-3544. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571) 272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KB

/Vivian Chin/
Supervisory Patent Examiner, Art Unit 2615